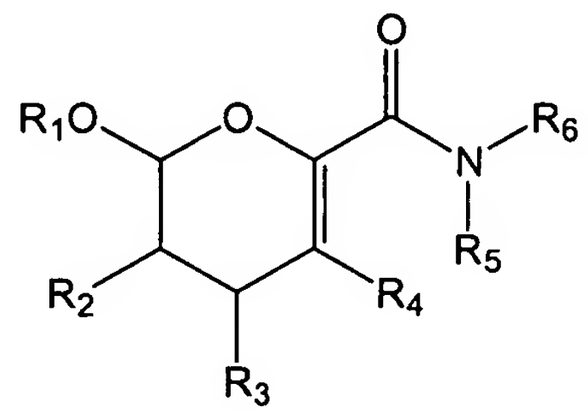
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. **(Original)** A compound having the structure:



(I)

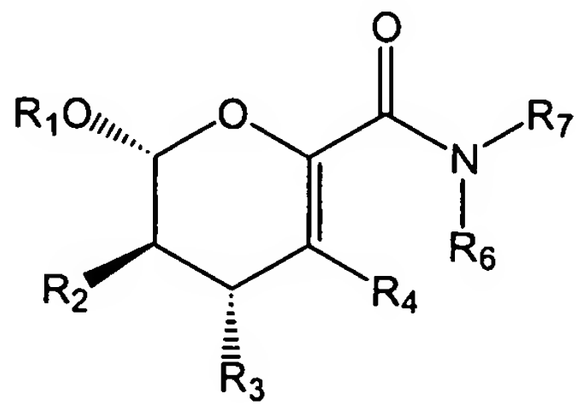
wherein R_1-R_4 are each independently hydrogen or an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl or alkylheteroaryl moiety;

R_5 and R_6 are each independently hydrogen or an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety, and wherein R_6 and R_7, taken together, may form a cyclic aliphatic, heteroaliphatic, aliphatic(aryl), heteroaliphatic(aryl), aliphatic(heteroaryl) or heteroaliphatic(heteroaryl) moiety, or an aryl or heteroaryl moiety;

wherein each of the foregoing aliphatic and heteroaliphatic moieties may be substituted or unsubstituted, cyclic or acyclic, saturated or unsaturated or linear or branched; and each of the foregoing aryl, heteroaryl, alkylaryl or alkylheteroaryl moieties may be substituted or unsubstituted; and

pharmaceutically acceptable derivatives thereof.

2. **(Original)** The compound of claim 1, wherein the compound has the structure **(II)**:



(II)

wherein R_1-R_4 are each independently hydrogen or an aliphatic, heteroaliphatic, aryl,

heteroaryl, alkylaryl or alkylheteroaryl moiety;

R_5 and R_6 are each independently hydrogen or an aliphatic, heteroaliphatic, aryl, heteroaryl, alkylaryl, or alkylheteroaryl moiety, and wherein R_6 and R_7, taken together, may form a cyclic aliphatic, heteroaliphatic, aliphatic(aryl), heteroaliphatic(aryl), aliphatic(heteroaryl) or heteroaliphatic(heteroaryl) moiety, or an aryl or heteroaryl moiety;

wherein each of the foregoing aliphatic and heteroaliphatic moieties may be substituted or unsubstituted, cyclic or acyclic, saturated or unsaturated or linear or branched; and each of the foregoing aryl, heteroaryl, alkylaryl or alkylheteroaryl moieties may be substituted or unsubstituted; and

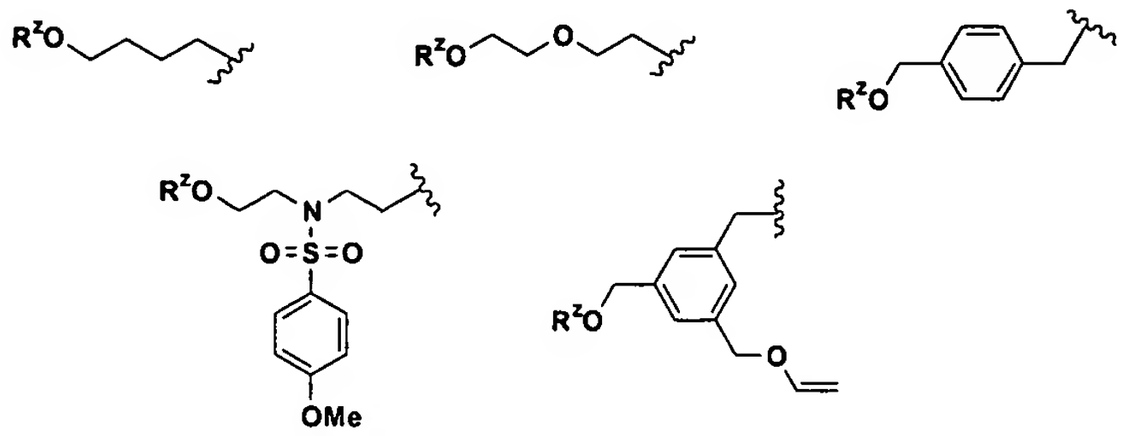
pharmaceutically acceptable derivatives thereof.

3. **(Original)** The compound of claim 1, wherein R^1 is hydrogen or an alkyl, heteroalkyl, aryl or heteroaryl moiety substituted with Z, wherein Z is hydrogen, $-(CH_2)_qOR^Z$, $-(CH_2)_qSR^Z$, $-(CH_2)_qN(R^Z)_2$, $-(C=O)R^Z$, $-(C=O)N(R^Z)_2$, or an aliphatic, heteroaliphatic, aryl, heteroaryl, -(aliphatic)aryl, -(aliphatic)heteroaryl, -(heteroaliphatic)aryl, or –(heteroaliphatic)heteroaryl moiety, wherein q is 0-4, and wherein each occurrence of R^Z is independently hydrogen, a protecting group, a solid support unit, or an aliphatic, heteroaliphatic, aryl, heteroaryl, -(aliphatic)aryl, -(aliphatic)heteroaryl, -(heteroaliphatic)aryl, or –(heteroaliphatic)heteroaryl moiety; wherein each of the foregoing alkyl or heteroalkyl moieties may be substituted or unsubstituted, linear or branched, cyclic or acyclic, saturated or unsaturated; and wherein each of the foregoing aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, or –(heteroalkyl)heteroaryl moieties may be substituted or unsubstituted.

4. **(Original)** The compound of claim 3, wherein R^1 is hydrogen, lower alkyl, a substituted or unsubstituted phenyl or –(lower alkyl)phenyl moiety, $-(CH_2)_nOR^z$, $-[(CH_2)_nO]_mR^z$, $-(CH_2)_n$-Ar-$(CH_2)_mOR^z$; wherein n and m are each independently integers from 1-6, Ar represents a substituted or unsubstituted aryl or heteroaryl moiety, and R^z is independently hydrogen, a protecting group, a solid support unit, or an aliphatic, heteroaliphatic, aryl, heteroaryl, -(aliphatic)aryl, -(aliphatic)heteroaryl, -(heteroaliphatic)aryl, or –(heteroaliphatic)heteroaryl moiety; wherein each of the foregoing alkyl or heteroalkyl moieties may be substituted or unsubstituted, linear or branched, cyclic or acyclic, saturated or unsaturated; and wherein each of

the foregoing aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, or –(heteroalkyl)heteroaryl moieties may be substituted or unsubstituted.

5. **(Original)** The compound of claim 4, wherein R^1 is hydrogen, ethyl, or has one of the structures:



;

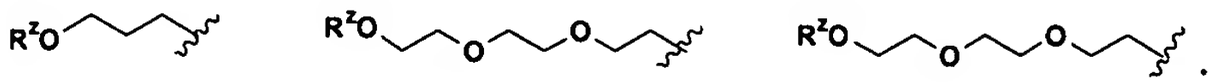
wherein R^z is as defined in claim 4.

6. **(Original)** The compound of claim 1, wherein R^2 is hydrogen or an alkyl, heteroalkyl, aryl or heteroaryl moiety substituted with Z, wherein Z is hydrogen, $-(CH_2)_qOR^Z$, $-(CH_2)_qSR^Z$, $-(CH_2)_qN(R^Z)_2$, $-(C=O)R^Z$, $-(C=O)N(R^Z)_2$, or an aliphatic, heteroaliphatic, aryl, heteroaryl, -(aliphatic)aryl, -(aliphatic)heteroaryl, -(heteroaliphatic)aryl, or –(heteroaliphatic)heteroaryl moiety, wherein q is 0-4, and wherein each occurrence of R^Z is independently hydrogen, a protecting group, a solid support unit, or an aliphatic, heteroaliphatic, aryl, heteroaryl, -(aliphatic)aryl, -(aliphatic)heteroaryl, -(heteroaliphatic)aryl, or –(heteroaliphatic)heteroaryl moiety; wherein each of the foregoing alkyl or heteroalkyl moieties may be substituted or unsubstituted, linear or branched, cyclic or acyclic, saturated or unsaturated; and wherein each of the foregoing aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, or –(heteroalkyl)heteroaryl moieties may be substituted or unsubstituted.

7. **(Original)** The compound of claim 6, wherein R^2 is hydrogen, lower alkyl, a substituted or unsubstituted phenyl or –(lower alkyl)phenyl moiety, $-(CH_2)_nOR^z$, $-[(CH_2)_nO]_mR^z$, $-(CH_2)_n$-Ar-$(CH_2)_mOR^z$; wherein n and m are each independently integers from 1-6, Ar represents a substituted or unsubstituted aryl or heteroaryl moiety, and R^z is independently hydrogen, a protecting group, a solid support unit, or an aliphatic, heteroaliphatic, aryl, heteroaryl, -

(aliphatic)aryl, -(aliphatic)heteroaryl, -(heteroaliphatic)aryl, or –(heteroaliphatic)heteroaryl moiety; wherein each of the foregoing alkyl or heteroalkyl moieties may be substituted or unsubstituted, linear or branched, cyclic or acyclic, saturated or unsaturated; and wherein each of the foregoing aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, or –(heteroalkyl)heteroaryl moieties may be substituted or unsubstituted.

8. **(Original)** The compound of claim 6, wherein R^2 is hydrogen or has one of the structures:

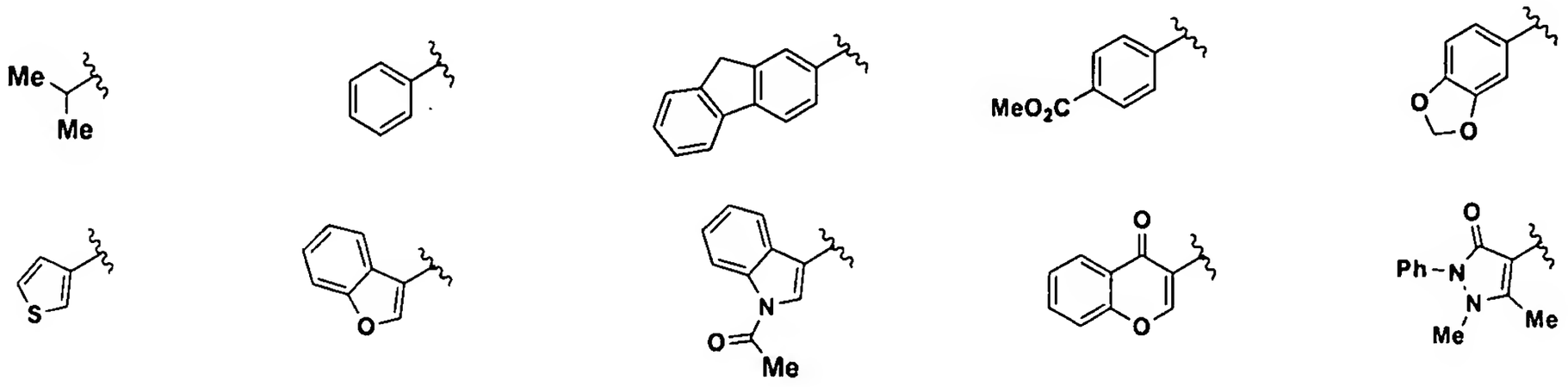


;

wherein R^z is as defined in claim 6.

9. **(Original)** The compound of claim 1, wherein R^3 is an alkyl, heteroalkyl, aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, or –(heteroalkyl)heteroaryl moiety; wherein each of the foregoing alkyl or heteroalkyl moieties may be substituted or unsubstituted, linear or branched, cyclic or acyclic, saturated or unsaturated; and wherein each of the foregoing aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, or –(heteroalkyl)heteroaryl moieties may be substituted or unsubstituted.

10. **(Original)** The compound of claim 9, wherein R^3 has one of the structures:



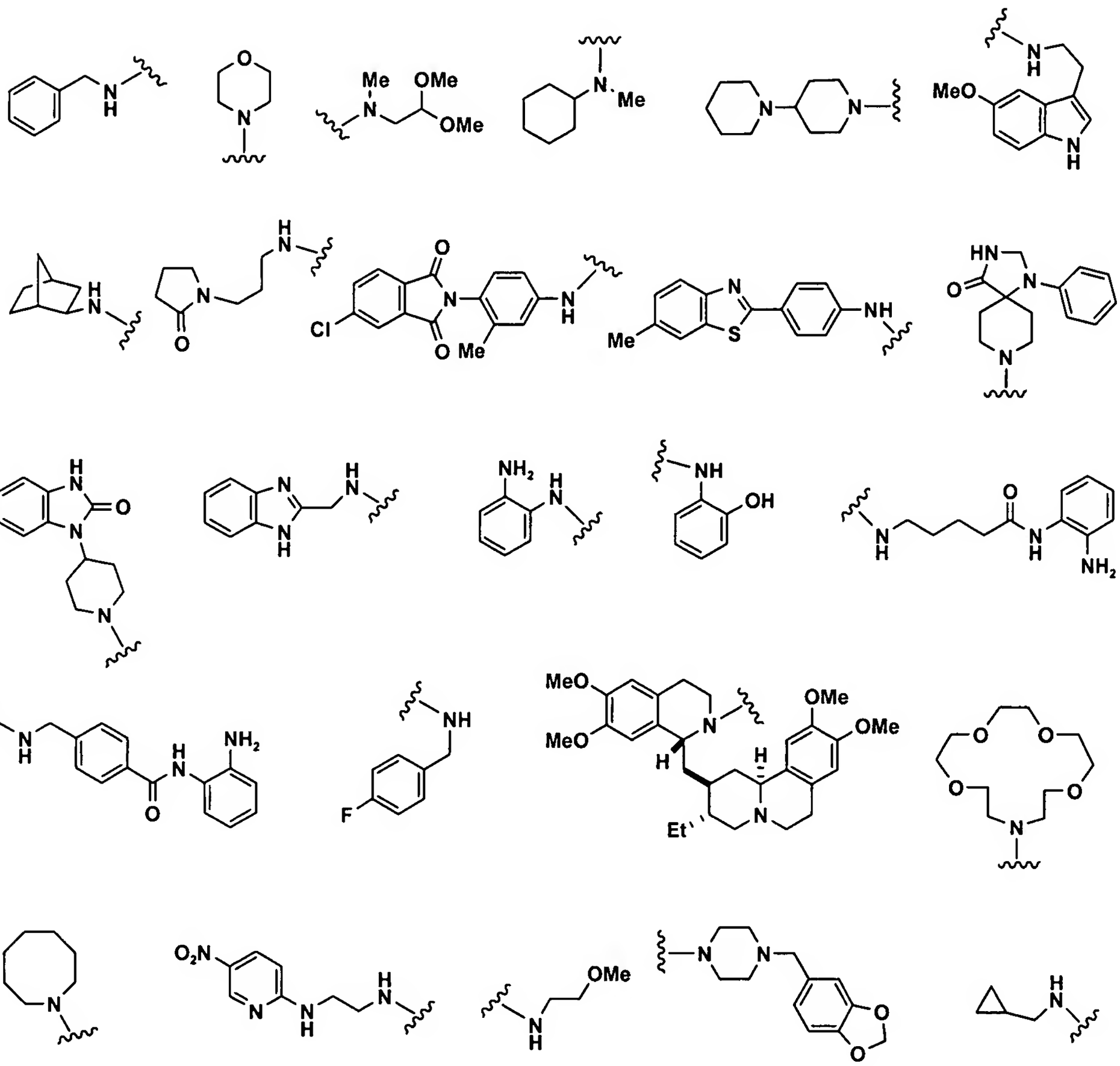
11. **(Original)** The compound of claim 1, wherein R^4 is hydrogen or an alkyl, heteroalkyl, aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, or –(heteroalkyl)heteroaryl moiety; wherein each of the foregoing alkyl or heteroalkyl moieties may be substituted or unsubstituted, linear or branched, cyclic or acyclic, saturated or unsaturated; and wherein each of

the foregoing aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, or –(heteroalkyl)heteroaryl moieties may be substituted or unsubstituted.

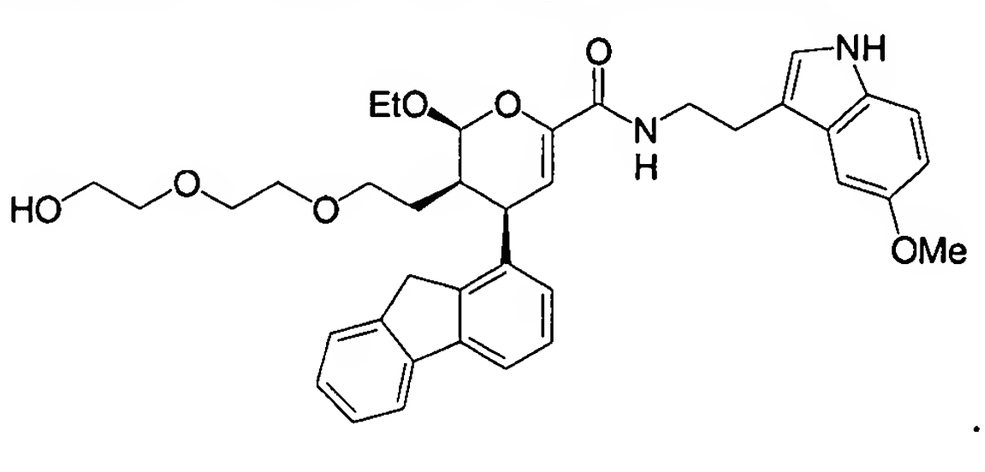
12. **(Original)** The compound of claim 11, wherein R^4 is hydrogen alkyl or heteroalkyl.

13. **(Original)** The compound of claim 1, wherein R^5 and R^6 are each independently hydrogen or an alkyl, heteroalkyl, aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, or –(heteroalkyl)heteroaryl moiety; or wherein R^5 and R^6, taken together, form a substituted or unsubstituted, saturated or unsaturated cyclic moiety comprising 5-12 carbon atoms, 0-5 oxygen atoms, 0-5 sulfur atoms and 1-5 nitrogen atoms; and wherein each of the foregoing alkyl or heteroalkyl moieties may be substituted or unsubstituted, linear or branched, cyclic or acyclic, saturated or unsaturated; and wherein each of the foregoing aryl, heteroaryl, -(alkyl)aryl, -(alkyl)heteroaryl, -(heteroalkyl)aryl, or –(heteroalkyl)heteroaryl moieties may be substituted or unsubstituted.

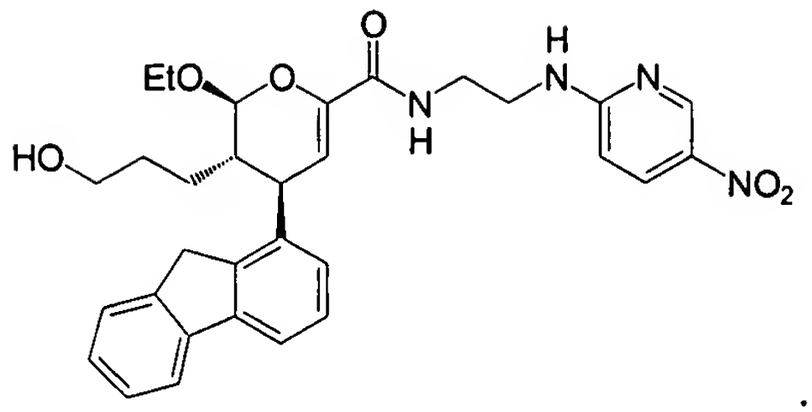
14. **(Original)** The compound of claim 1, wherein $-NR^5R^6$ is one of the following the structures:



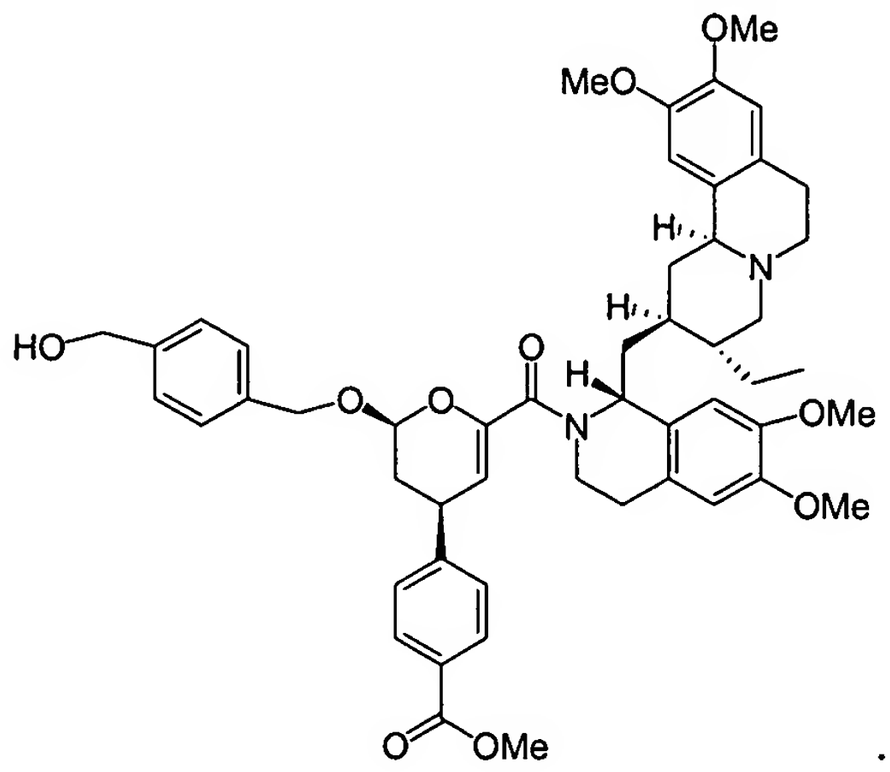
15. **(Original)** The compound of claim 1 having the structure:



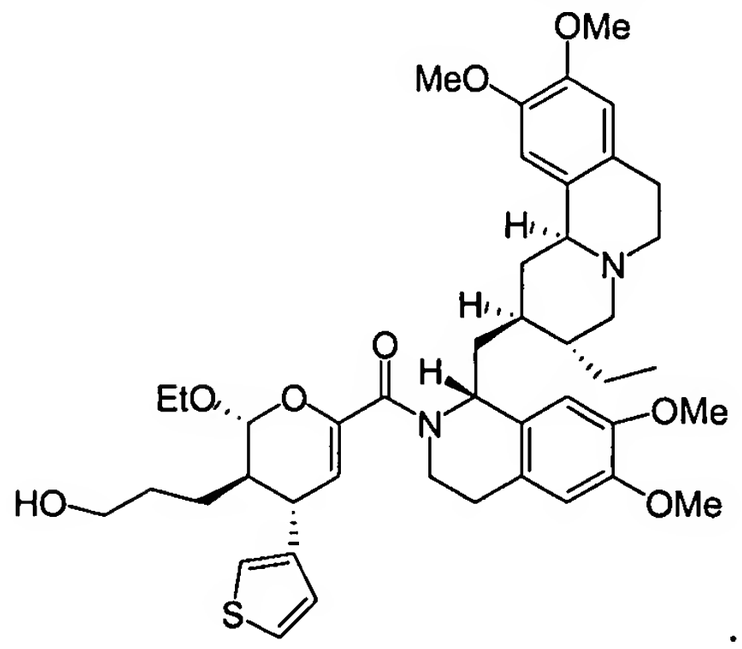
16. **(Original)** The compound of claim 1 having the structure:



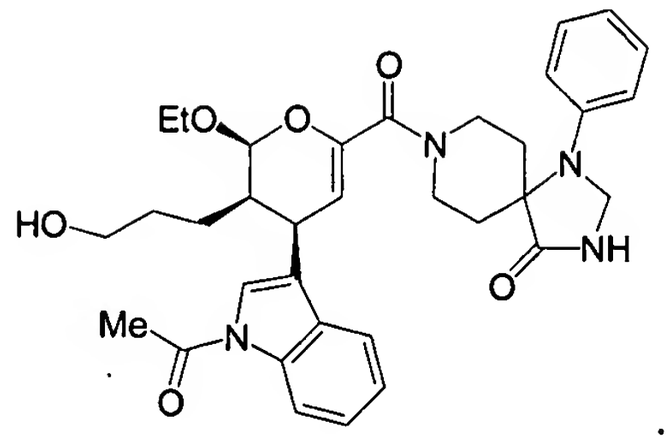
17. **(Original)** The compound of claim 1 having the structure:



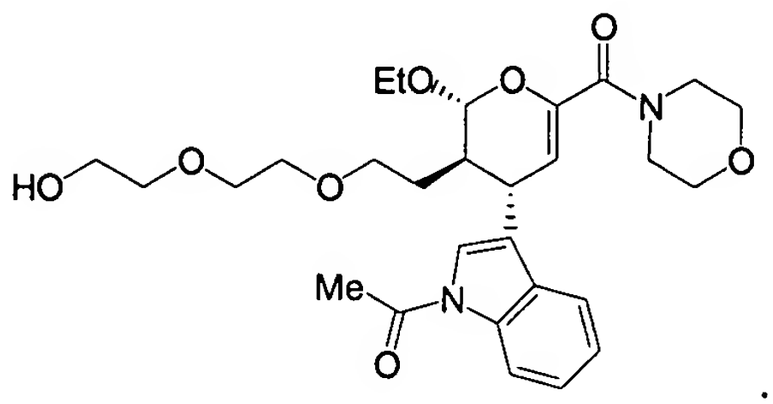
18. **(Original)** The compound of claim 1 having the structure:



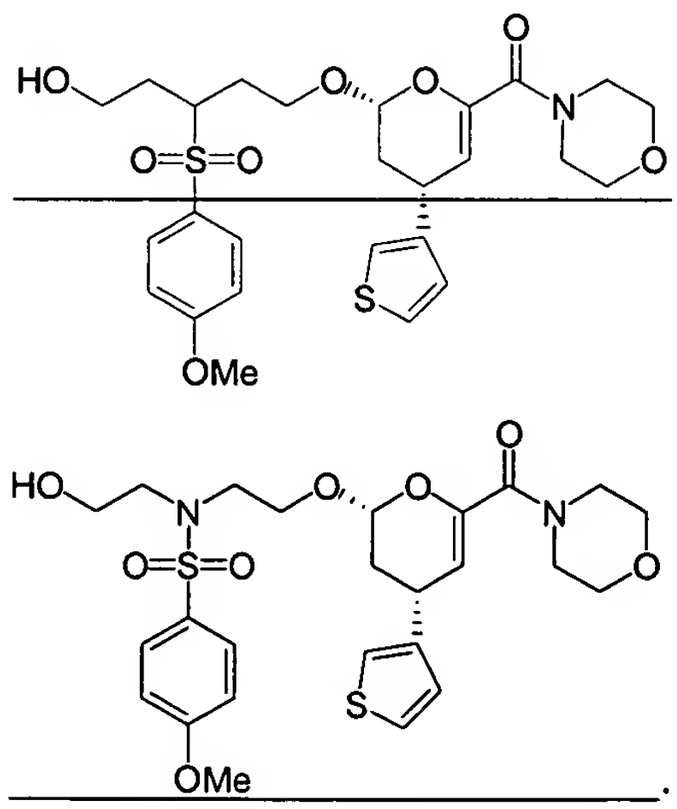
19. **(Original)** The compound of claim 1 having the structure:



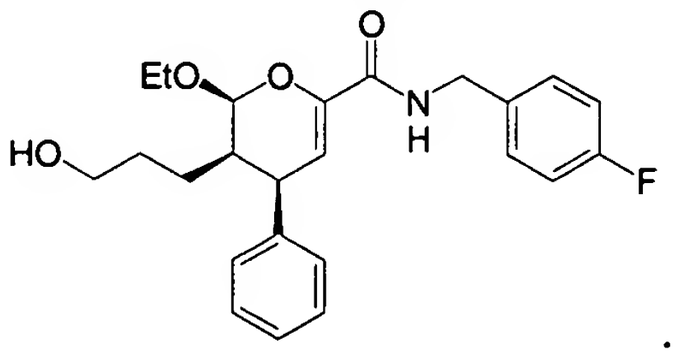
20. **(Original)** The compound of claim 1 having the structure:



21. **(Currently Amended)** The compound of claim 1 having the structure:



22. **(Original)** The compound of claim 1 having the structure:



23. **(Original)** A collection of compounds comprising two or more of the compounds of claim 1 or 2.

24. **(Original)** The collection of claim 23, wherein the collection is provided in array format.

25. **(Original)** The collection of claim 23, wherein the collection is provided in array format on a glass slide.

26. **(Original)** The collection of claim 23, wherein the collection comprises at least 100 compounds.

27. **(Original)** The collection of claim 23, wherein the collection comprises at least 1,000 compounds.

28. **(Original)** The collection of claim 23, wherein the collection comprises at least 2,000 compounds.

29. **(Original)** The collection of claim 23, wherein the collection comprises at least 10, 000 compounds.

30. **(Original)** A pharmaceutical composition comprising:

a compound of any one of claims 1, 2, 5, 8, 10, 14, and 15-22; and

a pharmaceutically acceptable carrier.

Claims 31-34 **Canceled**

35. **(Original)** A method for inhibiting a kinesin activity comprising contacting a cell with a compound of any one of claims 1, 2, 5, 8, 10, 14, and 15-22.

36. **(Original)** The method of claim 35, wherein the kinesin is Eg5.

37. **(Original)** A method for treating a proliferative disorder comprising:

administering to a subject in need thereof a therapeutically effective amount of a compound of any one of claims 1, 2, 5, 8, 10, 14, and 15-22.

38. **(Original)** The method of claim 37, wherein the proliferative disorder is cancer.

39. **(Original)** The method of claim 37, further comprising administering an additional therapeutic agent.